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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/695,411	10/29/2003	Keisuke Miyagawa	12732-173001 / US6698	5621

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EXAMINER

ABDULSELAM, ABBAS I

ART UNIT	PAPER NUMBER
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2629

DATE MAILED: 08/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/695,411

Applicant(s)

MIYAGAWA ET AL.

Examiner

Abbas I. Abdulsalam

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2-4 and 6-13 is/are allowed.
- 6) ☒ Claim(s) 1 and 5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>7/26/04, 9/27/04, 4-15-04</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over an admitted prior art in view of Li (USPN 6599767).

Regarding claim 1, the admitted prior art teaches as shown in Fig. 16, a positional relationship of a pixel of a liquid crystal panel 1401, a parallax barrier 1403 with an aperture 1402, and illustrates sections of a line of pixels in the direction along a line connecting both eyes, and an aperture 1402, which has a longitudinal direction that corresponds to a direction vertical to the direction along the line connecting both eyes in a plane parallel to the liquid crystal panel.

However, the admitted prior does not teach the use of a light emitting device having a plurality of pixels such that a light emitting element is provided in each of the plurality of pixels.

Li on the other hand teaches an organic light emitting diode (OLED) display substituting various types of liquid crystal display for use in portable electronic devices (col. 1, lines 15-23).

Hence, it would have been obvious to one of ordinary skill in the art at the time the invention was made to replace LCD-based optical system (1401, 1405) of the admitted prior art shown in Fig. 16 by appropriate OLED display as taught by Li (col 1, lines 15-23).

Regarding claim 5, a parallax barrier 1403 as shown in Fig.16.

Allowable Subject Matter

3. Claims 2-4 and 6-13 are allowed.

Reasons for Allowance

4. The following is an examiner's statement of reasons for allowance:

Brown et al. (USPN 6825985) teach as shown in Fig. 2B left and right view information that may be arranged on pixel array 11 such that images directed toward the left eye 13 and images directed toward the right eye 14 are interlaced wherein images intended to be viewed left and right eye are displayed on alternating pixel columns 112, 113 within the pixel array 11 (col. 10, lines 56-64).

Regarding claim 2, prior art does not teach a display device which is characterized in that the display device comprises a light-emitting device having a plurality of pixels and an optical system provided at one side of the light-emitting device, wherein a light-emitting element and first and second shield means that can shield light are provided in each of the plurality of pixels, wherein two electrodes of the light-emitting element both have translucency, wherein light emitted from a portion of a region of the light-emitting element to one side of the light-emitting element is shielded by the first shield means and light emitted from the other region of the light-emitting element to the other side of the light-emitting element is shielded by the second shield means, and wherein the optical system makes light emitted from one of two adjacent pixels of the plurality of pixels incident into a left eye of a viewer and makes light emitted from the other incident into a right eye of the viewer by controlling a traveling direction of light emitted from the plurality of pixels.

Regarding claim 3, prior art does not teach a display device which is characterized in that the display device comprises a light-emitting device comprising having a plurality of pixels and an optical system provided at one side of the light-emitting device, wherein first and second light-emitting elements and first and second shield means that can shield light are provided in each of the plurality of pixels, wherein two electrodes of the first and second light-emitting elements both have translucency, wherein light emitted from the first light-emitting element to one side of the light-emitting device is shielded by the first shield means and light emitted from the second light-emitting element to the other side of the light-emitting device is shielded by the second shield means, and wherein the optical system makes light emitted from one of two adjacent pixels of the plurality of pixels incident into a left eye of a viewer and makes light emitted from the other incident into a right eye of the viewer by controlling a traveling direction of light emitted to the one side of the light-emitting device.

Regarding claim 4, prior art does not teach a display device which is characterized in that the display device comprises a light-emitting device having a plurality of pixels and an optical system at one side of the light-emitting device, wherein first and second light-emitting elements and first and second shield means that can shield light are provided in each of the plurality of pixels, wherein the first and second light-emitting elements comprise two electrodes that both have translucency, wherein light emitted from the first light-emitting element to one side of the light-emitting device is shielded by the first shield means and light emitted from the second light-emitting element to the other side of the light-emitting device is shielded by the second

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shield means, wherein one of the first light-emitting element and the second light-emitting element is turned off while the other emits light, and wherein the optical system makes light emitted from one of two adjacent pixels of the plurality of pixels incident into a light eye of a viewer and light emitted from the other incident into a right eye of the viewer by controlling a traveling direction of light emitted to the one side of the light-emitting device.

Regarding claim 6, prior art does not teach an electronic equipment which is characterized in that the electronic equipment comprises a display device which has a light-emitting device having a plurality of pixels, an optical system provided at one side of the light-emitting device and a shield means that can shield light to be transmitted through the light-emitting device, wherein a light-emitting element is provided in each of the plurality of pixels, wherein two electrodes of the light-emitting element both have translucency, wherein the optical system makes light emitted from one of two adjacent pixels of the plurality of pixels incident into a left eye of a viewer and makes light emitted from the other incident into a right eye of the viewer by controlling a traveling direction of light emitted from the plurality of pixels, and wherein the shield means can be move a position so as to exist on the opposite side of the light-emitting device from the viewer.

----- Regarding claim 7, prior art does not teach a electronic equipment which is characterized -----
in that the electronic equipment comprises a display device having a light-emitting device having a plurality of pixels, an optical system at one side of the light-emitting device, and a first shield means and a second shield means that can shield light to be transmitted through the light-

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emitting device, wherein a light-emitting element is provided in each of the plurality of pixels, wherein two electrodes the light-emitting element both have translucency, wherein the optical system makes light emitted from one of two adjacent pixels of the plurality of pixels incident into a left eye of a viewer and makes light emitted from the other incident into a right eye of the viewer by controlling a traveling direction of light emitted from the plurality of pixels, and wherein the first shield means can move a position so as to exist on the opposite side of the light-emitting device from the optical system and the second shield means can move a position so as to exist on the opposite side of the optical system from the optical system.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abbas I. Abdulsalam whose telephone number is 571-272-7685. The examiner can normally be reached on Monday through Friday from 9:00 A.M. to 5:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe, can be reached on 571-272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications

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may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Abbas Abdulsalam

Examiner

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August 14, 2006

A handwritten signature in black ink, appearing to read 'R. Hjerpe', is positioned above the printed name and title.

RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600